Patent claims

1. Paint based on at least one polymer dispersion with pigments, fillers, thickeners, dispersants and additives,
characterised in that
it contains:
a) 2-20 wt-% polymer dispersion calculated as a solid component,

b) 2-35 wt-% pigments,

c) 5-60 wt-% fillers having a particle diameter of 0.1-200 µm

d) 0.1-3 wt-% thickeners,

e) 0.1-2 wt-% dispersants, and

f) a maximum of 5 wt-% additives and water to make up to 100%,
with the proviso that the dispersion has a viscosity of 2.0 to 5 · 10^2 m Pa/s, the viscosity being determined at a shear rate of 30,000 · 1/s with a capillary rheometer.

2. Paint according to claim 1, **characterised in that** the viscosity is in the range from 3.5 to 5.0 · 10^2 m Pa/s.

3. Paint according to claim 1 or 2, **characterised in that** the polymer dispersion is selected from polymers which have been obtained from the monomers carboxylic acid vinyl esters having 3-20 carbon atoms, N-vinylpyrrolidone, ethylenically

unsaturated carboxylic acids, their esters, amides or anhydrides, styrene or its derivative, and/or α-olefins.

4. Paint according to claim 3, **characterised in that** it is a polystyrene acrylate, acrylic resin and/or silicone resin dispersion.

5. Paint according to one of the preceding claims, **characterised in that** the pigments are selected from titanium dioxide, iron oxide, chromium oxide, cobalt blue, phthalocyanine pigments, spinel pigments as well as nickel and chromium titanate, azoic pigments, quinacridone pigments and/or dioxazine pigments.

6. Paint according to claim 5, **characterised in that** the pigment is titanium dioxide.

7. Paint according to one of the preceding claims, **characterised in that** the fillers have a diameter of between 0.1 and 100 µm and are selected from silicates, carbonates, fluorite, sulphates and oxides.

8. Paint according to one of the preceding claims, **characterised in that** the surface of the fillers is functionalised.

9. Paint according to one of the preceding claims, **characterised in that** the thickener is selected from polycarboxylates, urethane thickeners, polysaccharides and/or cellulose ethers.

10. Paint according to one of the preceding claims, **characterised in that** the additives are

dispersants, stabilisers, anti-foaming agents, preservatives and/or hydrophobing agents.

11. Method for applying the paint according to at least one of claims 1 to 10, using a spraying process, **characterised in that** the dispersion paint is led out of a reservoir via a conveying unit and a connecting line to an airless spray gun and sprayed at 55-135 bar spraying pressure measured at the spray gun.

12. Method according to claim 11, **characterised in that** the pressure is 70-80 bar.

13. Method according to claim 12, **characterised in that** a diaphragm pump is used as the conveying unit.

14. Method according to claim 12 or 13, **characterised in that** a temperature-controlled hose is used as the connecting line.

15. Method according to claim 14, **characterised in that** the temperature is so controlled that the dispersion paint has a temperature of 27-40°C, preferably 30-38°C, at the spray gun.

16. Method according to one of the preceding claims, **characterised in that** the airless spray gun is equipped with a double nozzle.

17. Method according to claim 16, **characterised in that** the double nozzle is designed in the form of two slit-like nozzle apertures arranged beside one another, preferably in a row.

18. Method according to claim 16 or 17, **characterised in that** the arrangement and design of the double nozzles is so selected that the spray jets intersect in the longitudinal direction.

19. Use of the dispersion paint according to at least one of claims 1 to 10 for applying the dispersion paint by means of an airless method.